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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,657	10/28/2003	Claudia Gluch	21295.69 (H747US)	4061
29127	7590	05/04/2005	EXAMINER	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			LAVARIAS, ARNEL C	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,657

Applicant(s)

GLUCH ET AL,

Examiner

Arnel C. Lavarias

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/28/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings were received on 10/28/03. These drawings are objected to for the following reason(s) as set forth below.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Figure 1- Reference numeral 14a.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. *It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.*

5. The abstract of the disclosure is objected to because of the following informalities:

Abstract, Paragraph 31, lines 1-2- 'is disclosed' should be deleted.

Correction is required. See MPEP § 608.01(b).

Claim Objections

6. Claims 8-12 are objected to because of the following informalities:

Claims 8-9, 11-12 all include the abbreviation "PC". The full, unabbreviated word or phrase must be included the first time an abbreviation is used.

Claim 10 recites the limitation "the scale on the attachment element" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the PC" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the file" in line 3. There is insufficient antecedent basis for this limitation in the claim.

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Claim 12 recites the limitation "the PC" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the macroscope" in line 4. However, it is not clear which macroscope is being referred to here, since Claim 1 specifically recites "two macroscopes" in line 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus (U.S. Patent No. 2040066) in view of Mori (U.S. Patent No. 3734593) and Zeiss (DE 9413513U1).

Ursinus discloses a comparison optical system (See for example Figure 11), comprising two macroscopes (See for example a, b, a', b' in Figure 11); a bridge which couples the macroscopes mechanically and optically to one another (See for example f, f', g in Figure 11); a stage associated with each microscope for placing a sample thereon (See for example d, o, d', o' in Figure 11); an illumination system including at least one light source for specimens placed on the stage (See for example e, e' in Figure 11); and an attachment device for the illumination system is connected to each microscope (See

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for example attachment of e, e' onto b, b' in Figure 11). Ursinus lacks the stages being XYZ stages and each attachment device having several movable arms and an adjustable holder for the light source. However, the use of XYZ translation stages in microscopy is well known and conventional in the art. For example, Mori teaches a conventional plural-microscope optical system (See for example Figures 1-2), wherein the stage for holding a sample to be viewed is an XYZ translation stage (See 12, 26, 25a, 25b, 25c in Figures 1-2). The combined teachings of Ursinus and Mori lack each attachment device having several movable arms and an adjustable holder for the light source. However, Zeiss teaches a microscope optical system (See for example Figure 2) which utilizes an illuminator attachment means (See for example Figure 1; 13, 14 in Figure 2) that includes several movable arms (See for example 15, 17, 18, 24 in Figure 2) and an adjustable holder (See for example 19 in Figure 2) for the light source (See 21 in Figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the stages be XYZ stages and each attachment device have several movable arms and an adjustable holder for the light source, as taught by Mori and Zeiss, in the comparison optical system of Ursinus, for the purpose of 1) providing selective and adjustable movement and positioning of the sample, particularly during focusing procedures, and 2) providing selective and adjustable movement and positioning of the illumination source to achieve optimal illumination of the sample during focusing and viewing.

9. Claims 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss.

Ursinus in view of Mori and Zeiss discloses the invention as set forth above. Ursinus in view of Mori and Zeiss lacks each macroscope encompassing a rotatable ring to which a first arm of the several movable arms is attached, the rotatable ring being equipped with a locking screw to immobilize the rotatable ring. However, Zeiss further teaches that the various movable arms in the illumination attachment means are attached to a ring rotatably attached to the end of the objective, wherein a locking screw may be used to prevent rotation of the rotatable ring to fix the rotatable ring, and hence the illumination source, in place. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have each macroscope encompass a rotatable ring to which a first arm of the several movable arms is attached, the rotatable ring being equipped with a locking screw to immobilize the rotatable ring, as further taught by Zeiss, in the comparison optical system of Ursinus in view of Mori and Zeiss, for the purpose of providing selective and adjustable movement and positioning, via rotation about the axis of the objective, of the illumination source to achieve optimal illumination of the sample during focusing and viewing.

10. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss as applied to Claims 1-2 above, and further in view of Scouten et al. (U.S. Patent Application Publication US 2003/0120282A1).

Ursinus in view of Mori and Zeiss discloses the invention as set forth above in Claims 1-2. Ursinus in view of Mori and Zeiss further discloses the first arm having an end, at the end of the first arm, opposite the rotatable ring, a first clamping apparatus is provided, in which a second arm is guided (See 13, 14, 15, 16, 17 in Figure 2 of Zeiss); a second

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clamping apparatus (See for example clamp to the right of arm 17 in Figure 2 of Zeiss) provided on the second arm, opposite the first clamping apparatus, wherein the second and third arm (See for example 18 in Figure 2) are guidable perpendicular to one another (It is noted that the ball joints may be rotated along multiple axes, and that a pair of such ball joints may each be rotated along axes that are perpendicular to each other), and a holder for the illumination system being mounted opposite the second clamping apparatus (See for example holder attaching 21 to 19 in Figure 2 of Zeiss); and the holder being rotatable about an axis perpendicular to a rotation axis of the rotatable ring and perpendicular to the third arm (See for example 20 in Figure 2). Ursinus in view of Mori and Zeiss lacks the rotatable ring and the various arms and holders having a scale. However, the use of such scales or indicia is well known and conventional in the art. For example, Scouten et al. teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm, holder, and ring elements are provided with visual scales or indicia (See Figure 2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the rotatable ring and the various arms and holders having a scale, as taught by Scouten et al., in the comparison optical system of Ursinus in view of Mori and Zeiss, for the purpose of providing accurate degree of control and positioning of the various arms and rings of the attachment device, particularly during focusing and alignment operations.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss as applied to Claim 1 above, and further in view of Bacus et al. (U.S. Patent No. 6101265).

Ursinus in view of Mori and Zeiss discloses the invention as set forth above in Claim 1, except for a PC being associated with the comparison optical system. However, the use of a computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems are controlled by a controlling computer system (See for example 12 in Figure 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a PC be associated with the comparison optical system of Ursinus in view of Mori and Zeiss, as taught by Bacus et al., to take advantage of the speed and automation provided by utilizing a computer to perform the various microscope functions.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss, and further in view of Bacus et al. as applied to Claims 1, 8 above, and further in view of Scouten et al.

Ursinus in view of Mori and Zeiss, and further in view of Bacus et al. discloses the invention as set forth above in Claims 1, 8. Ursinus in view of Mori and Zeiss, and further in view of Bacus et al. additionally discloses that various positional values for the various encoders, illumination conditions, as well as various image data may be saved to and retrieved from files in memory on the computer (See for example col. 7, line 49-col. 11, line 42 of Bacus et al.). Ursinus in view of Mori and Zeiss, and further in view of Bacus et al. does not specifically disclose the values of scales which are saved to and retrieved from files in memory on the computer. However, Scouten et al. teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm,

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holder, and ring elements are provided with visual scales or indicia (See Figure 2). In particular, the values of such scales or indicia are electronically determined by a reader head and sent to the computer for display and storage, and that such values may be retrieved and used at a later time (See for example Paragraphs 0065-0119). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the values of scales be saved to and retrieved from files in memory on the computer, as taught by Scouten et al., in the comparison optical system of Ursinus in view of Mori and Zeiss, and further in view of Bacus et al., to reduce the time and complexity in determining and recording positional data of the various elements in the attachment device.

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss as applied to Claim 1 above, and further in view of Scouten et al. and Tasaki et al. (U.S. Patent No. 3637283).

Ursinus in view of Mori and Zeiss discloses the invention as set forth in Claim 1, except for the light source being constituted by the exit end of a light guide, the light incidence onto the specimens being determined by the values on a scale on the attachment device. However, the use of light guides, such as fiber optical cables and bundles, is well known in the art for applications in illumination. For example, Tasaki et al. teaches a conventional microscope system, wherein the illumination system includes a light source and fiber optical systems for guiding the light and illuminating the sample (See for example Figures 8, 9, 13). The combined teachings of Ursinus, Mori, Zeiss, and Tasaki et al. lack the light incidence onto the specimens being determined by the values

on a scale on the attachment device. However, the use of such scales or indicia is well known and conventional in the art, particularly for positioning of various elements in an optical system. For example, Scouten et al. teaches a conventional micromanipulator (See for example Figures 1-2), wherein various arm, holder, and ring elements are provided with visual scales or indicia (See Figure 2). In particular, the values of such scales or indicia are electronically determined by a reader head and sent to the computer for display and storage, and that such values may be retrieved and used at a later time (See for example Paragraphs 0065-0119). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the light source be constituted by the exit end of a light guide, the light incidence onto the specimens being determined by the values on a scale on the attachment device, as taught by Tasaki et al. and Scouten et al., in the comparison optical system of Ursinus in view of Mori and Zeiss, for the purpose of 1) making the illumination system compact, thus reducing the size and weight of the optical system; and 2) providing accurate degree of control and positioning of the various arms and rings of the attachment device, and hence the illumination system, particularly during focusing and alignment operations.

14. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss, and further in view of Tasaki et al. and Scouten et al. as applied to Claims 1 and 10 above, and further in view of Bacus et al.

Ursinus in view of Mori and Zeiss, and further in view of Tasaki et al. and Scouten et al. discloses the invention as set forth above in Claims 1, 10, except for the light source being connected to a PC and receiving control signals therefrom. However, use of a

computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems, including the illumination system, are controlled by a controlling computer system (See for example 168 in Figures 4A-B; 12 in Figure 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the light source be connected to a PC and receive control signals therefrom, as taught by Bacus et al., in the comparison optical system of Ursinus in view of Mori and Zeiss, and further in view of Tasaki et al. and Scouten et al., to take advantage of the speed and automation provided by utilizing a computer to perform the various microscope functions, such as adjustment of illumination source brightness, color temperature, and spectral output.

15. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ursinus in view of Mori and Zeiss as applied to Claim 1 above, and further in view of Bacus et al.

Ursinus in view of Mori and Zeiss discloses the invention as set forth above in Claim 1, except for the positions of the XYZ stages, the intensity of the light sources, and the positions of a revolving nosepiece are stored in a file provided in the PC, and those values are retrieved from the file in order to adjust the two microscopes. However, the use of a computer or microprocessor is well known and conventional in the art of microscopy. For example Bacus et al. teaches a conventional microscopy system (See for example Figure 5), wherein the various microscope subsystems, such as the translation stages, illumination source, and objective turret, are controlled by a controlling computer system (See for example Figures 4A-B; 12 in Figure 5), and that

settings from these subsystems may be stored to and retrieved from the computer system. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the positions of the XYZ stages, the intensity of the light sources, and the positions of a revolving nosepiece be stored in a file provided in the PC, and those values be retrieved from the file in order to adjust the two macroscopes of the comparison optical system of Ursinus in view of Mori and Zeiss, as taught by Bacus et al., to take advantage of the speed and automation provided by utilizing a computer to store preset microscope subsystem settings and perform the various microscope functions.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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5/2/05